UNTH ORL

AAA

Openers

UNTH ORL

0046

UNTH
Openers?

Time was when
'longhair music'
meant 'classical'

Hippy girl joke
'Pad' joke

2337

UNTH ORL 2

AA

LIST TO DEMOLISH:
Syst. Desus, Excitement

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https://archive.org/details/unthorl00tedn

UNTH ORL 3

1 A

PUBLIC INVOLVEMENT I

0079

I hope to sophisticate you in artistic ways.

persons who disagree might say 'brainwash'... 2369

0065

~~("Tech not revolution")~~

As a designer and promoter of such systems, you might suppose that ~~too~~ my motivation would be not to give the game away... 2361

~~(CN 2379)~~ 0089

We Need Technosophers 9

0134

The myth of the Two Cultures is a ghastly hoax which has suffocated sophisticated public criticism of things and systems. 2410

UNTH ORL 4

UNTH

BASIC IDEAS of the technologies
are very simple
and anybody who
tells you different
must have a reason.

2340
~~2435~~

UNTH

2432

Idea of 'technology'
as 'magic'
rather than a rich
but unreliable
tool chest.

(Recent TV show:
"Using technology
[these researchers ...]"

3

0044

NARROW VISIONS 23

in which, already, Ph.D. programs are being set up.

0134

The public is learning to criticize automobiles as automobiles, highway construction & urban renewal (where the absurd and inhuman have hidden behind supposedly technical criterions)

⇒ When people begin to realize that any system is open to criticism, then.

UN+H

What's needed is for people to be turned loose with the media, and see what they invent!

The equipment is bottled up in committee.

2340

~~2435~~

1 B

UNTH ORL 6

0133 'Beatles and the Beast'
(Art & { ~~Technology~~ / The Machine }) 2408

0112 CLASSICAL ANTIPATHY BETWEEN
ART & SCIENCE —
'the virgin and the dynamo'
CP Snow's Two Cultures 2399

2

UNTH ORL 7

UNTH

Intellectuals and liberals
cannot by their ideological
stance hate any ethnic
group.

It is the present ideology
of the intellect,
[illegible] that nothing which is
human can be
all bad. [By definition]

Therefore who to hate?

⇒ A SCAPEGOAT
WAS FOUND.

The machine. And are project on the machine all the bad things we don't like about people.

2442

0022 'Depersonalization'
a strange kind of myth 2328
left over from the '50s, 2
— a very few organiza-
tions, like the phone co.
& the govt.,
really represent it.

0021 The proper symbol is not
the stamping press (to pockets, to pockets, to pockets) of relentless repetition 2328
with Walter Mitty
or the dark sorter,
but the electric guitar

0014 — not 'electronic sound', 2
just a recraftability 232
and total control ...

0074 Radio and = 232

'The sound
of
electronics'

0137 Horrible stereotype:
'System' ≡ Rigidity.
Ridiculous. Whole point
of system is to
do what you want done. 2414

0138 Systems Analysis: 2415

Getting as much
of what you want
as possible
from what you are
willing to pay

Applies as much
to art as
submarine chasers.

UNTH ORL

UNTH

Is a telephone
impersonal?
No!
A telephone
OPERATOR
is impersonal!

2441

~~Can~~

Can a machine be inhuman?
What would Wittgenstein say?
The word 'inhuman' is a
word that can be applied only
to humanity. Can a dog
be inhuman? Metaphorically. Why a computer?

UNTH ORL 11

UNTH

I have never heard a typewriter denounced!

439

0075 Just because the Nazis used typewriters ~~in the~~ in the running of their death camps, we don't abolish typewriters.

2368

Similarly, just because computers make occasional grim calculations of war, ~~there~~ is no reason to spite them when it comes to our uses of art and life.

Or, as either Martin Luther or General Booth once said, 'Why should the devil have all the best tunes?'

7 UNTH ORL 12

0120 I have the greatest 2402
love and respect
for the human mind
and its capacity
to create and
organize ideas.
I have never heard
of a machine system
for this that was
worth a damn.

0121 All the systems I ~~begin~~ get mixed up in, 2402
therefore, have
as their purpose the
~~execution and clarif..~~
clarification & richment of
human ideas & knowledge
and the creation
of their consequences.

8 UNTH ORL 13

0037 Bum terms which suggest the difference
I have in mind:
OPEN
ENRICHING

2332

But I ~~say~~ mean:

REPRESENTING
THOUGHTS CORRECTLY IN ALL COMPLEXITY
HELPING TO CLARIFY THOUGHT

PROMOTING HUMAN
ENTHUSIASM &
INVOLVEMENT
& PERSONALIZATION

PROMOTING BREADTH OF
UNDERSTANDING,
AS WELL AS SIMPLE SKILLS

* 0115 Bs idea:
'under
HUMAN CONTROL
with
COMPUTER MEDIATION.' 2399
[—Ron Baecker]

but we'll get to that

1 ~~MOST~~ EXTREMITY OF THE DESPISED MACHINE: COMPUTER. 14

C

UNH ORL

2441

Note:

projection

computer

— sees

it aspects of

one's own [illegible]

of one's fears in the world

~~[illegible]~~

2 UNTH ORL 15

0080 Exaggerated public notion of what computers are 2370
'giant brains'
super-snoopers

0108 ⇨ 'Saturday review' mentality: computers, punch cards, inhuman, Nazis, napalm 397

0080 (New focus for insanity, too)

3

UNTH ORL 16

variety

Computers are rigid & literal-minded — say! that's a projection of the personalities that have been monopolizing them

2441

THE COMPUTER

UNTH ORL

D

UNTH

A NUMBER OF ~~APPALLING~~ FALSEHOODS 2441

ARE EXPOUNDED

AS INTRODUCTORY

RAGS ABOUT

COMPUTERS.

- NUMERICAL
- BINARY → DISCRETE
- STUPID → DELIVERED RUDIMENTARY
- LOGICAL → (mindless) DEMANDING? EXACT?

they'll do certain

half-evident things

but then so well

a think of water

0110

0073

'It will only do what you tell it'

— not quite right because 367

of the incredible elaborations

& subtlety possible.

[GP computer

SINGLE DESIGN turns out to ~~do best~~ be best

for:

~~info feedy~~

'info feeding

~~& cont~~

& control

computation ~~computation~~

etc

2330

UNTH

'the information appliance'

0070 'All purpose machine' 2

0093 Computer is unique among machines — the COMPLETELY GENERAL PLAN FOLLOWER — 36

0024 → Most general control box

intercomparison machine

set-up decision effectuator

info feeder

2328

2

0071 computer
a blank machine,
without character —
enormous refs to
'the kind of numbers
a computer can read,'
'the voice are a
computer' [illegible]

0070 — can change
program & do
anything which
~~anything which~~
can be reduced
to a series of steps.

4

UNTH ORL 7c

0098

TODAY
ESP.
DISCUSS

Computer as
REPOSITORY
&
EXHIBITOR

2391

YA

UNTH ORL

UNTH

Sorry no picture of computer—
today a small computer
looks like a drawer
or maybe a closet)
with a few twinkling lights on it.

2439

5

UNTH ORL 22

Strange stuff in the press about what 'computers can do'

0076 Wherever you hear the word 'computer,' substitute the word 'typewriter.' That will give you a sense of its structural significance in the system 2369

UNTH
0077 c/t 2

under discussion. 69

Can a typewriter write a great novel?

Can a typewriter write a poem?

Can a typewriter

0128

6 UNTH ORL 23

0129 unth
22

write a
medical report?
The answer to all
of these is yes —
but you left
something out. 2406

Just as there are 236
many things you
cannot do about
typewriters, there are
many things you
cannot do without
computers, but that
doesn't mean the
computer, or the
typewriter, is boss.

0077

0129 The controlling mechanism —
for the typewriter, the
typist; for the computer,
a {program. / system.} And each
is part of a system.

0078 The approaches, suppositions, explicit & realises and structural design decisions of the system are the important thing. 2236

Those were put there by somebody. The computer is only an accessory.

0072 Not 'what computers can do' — but systems programmed for computers. 2367

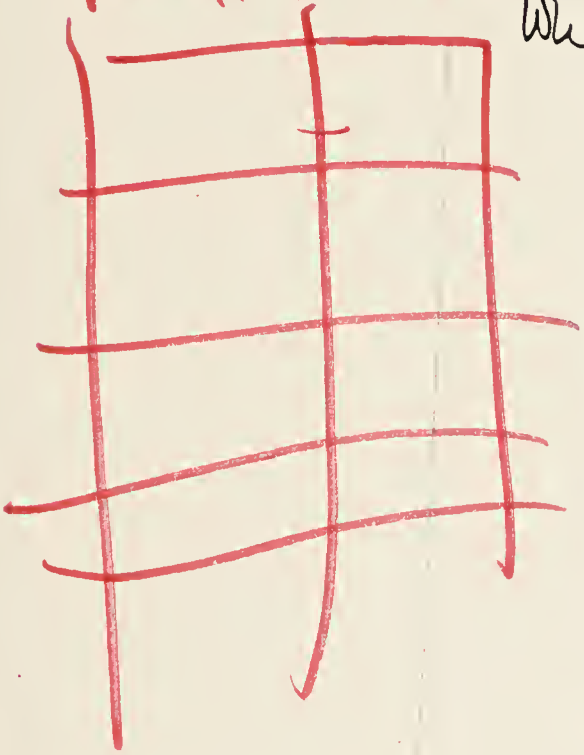
E.g. Mathews' music program, Greenblatt's chess program, Sutherland's Sketchpad system, Nelson's Fantasm.

System generally take on personality traits of designers. Sketchpad lean & elegant, Fantasm (TN) is soft-hearted & sloppy.

UNTH ORL

0132

Parallel slides



[equiv w/ 10C/CSS]

Programs can be built out of other programs.

When you have a lot of small programs and they can be put together and piled up in different ways, it's called a language. There are thousands of computer languages, each with its own purposes, rules, advantages & followings. Learning a computer language is like learning the rules of a complicated game — they're all different, but with practice you can pick ... or more quickly

2408

40089

There is not one computer field but a hundred. The invention of the computer is as important as that of the printing press, Jacquard loom and television all rolled into one. . . to say nothing of its mathematical & financial uses, which are a bore.

TEXT HANDLING control comp. display

E

PUBLIC INVOLVEMENT # 26

UNTH ORL

~~(CN 2337)~~ 0089

Nowhere has the idiotic separation of 'two cultures' gone so far as in the public ignorance of computers. 2337

0108 HUMANISTS, INTELLECTUALS & THE PUBLIC-MINDED ~~#~~ have abdicated possible involvement with the computer.

0122 the purposes and premises of computer systems CAN BE UNDERSTOOD! 2402

People must learn or continue to be trod on.

UNTH ORL 27

UNTH

I want you good people to know who your friends are. Your friends are the computers. The computers' keepers are another matter.

2441

0139

Why I want you to know:

1) You ought to know;
2) I want people to be as critically aware of the possibilities in computer systems as they are today in automobile design and urban ~~[illegible]~~ renewal.
The GRAND POSSIBILITIES, the OPTIONS FOREGONE

2415

0108

(→ We need a Ralph Nader in the computing field already. But we couldn't get one in the automotive field till everybody [illegible] how to drive.)

0108 NOW IS THE TIME for you to find out
what's in the machine
DECIDE THE INFO STRUCTURE
DESIGN THE DISPLAYS } for your field

0108 YOU HAVE NO CHOICE
If you don't do it, ~~IBM~~ the big manufacturer will do it
for you, and five years
from now you'll find out
you don't like it at all

0107

2397

Give examples of
people who wanted to
do their thing
on a computer.

e.g. the [illegible] [illegible]
[illegible]
[illegible] / NFB work.

But: the dead wood
dead weight
dead hand
in the corp. organization
is tremendous.

E1 UNTH ORL 30

0094 FANTIC = df 2387

Information/Presentation Systems.

(in combination)

0101 [☆] The properties. 2392

IMPACT
PRESENTATIONAL QUALITIES
EDITORIAL PROPERTIES
FEEL (response)

UNTH ORL 31

0130 'Fantics!'

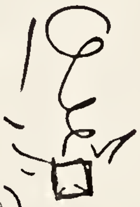
2406

→ I don't think there are any scientific principles in this field.

→ Or if they are, they deal with the impact of what is seen upon the ~~ideas~~ → senses and the ideas of the beholder.

→ We've had a name for this science a long time, and the name is

SHOWMANSHIP!



← (set off powder charges?)

UNTH ORL 32

★ UNR 0100

0100 two basic concepts with the human mind

CONCEPTS

INTEREST &
INVOLVEMENT;
MOTIVATION
& COUNTERMOTIVATION

2392

0135 Basic things abt. a pres. system

IMPACT

FEELINGS of users, viewers

HONOR

ties in also greatly with

2412

E2 McLuhan & M.A. Hilton UNTH ORL 33

0056 I tentatively disagree with ~~the~~ Monolithic hypotheses of technology. 2352
(McLuhan, Alice Mary Hilton)
technology is not ~~a~~ ~~and~~ one big thing, it is a ~~[illegible]~~ thousand different little things, and their exact differences and interactions are crucial.

0018 GLOBAL McLUHANISM DOUBTFUL 2328

→ very specific, matters of techniques, ~~[illegible]~~ relative costs, & sociological & social factors determine the 2 complex way.

UNTH ORL 34

UNTH
0019

YES THEY'LL ALL BE UNITED, BUT PARTICULARS OF SYSTEMS WILL DETERMINE THE WAY IT IS — NO UNDIFFERENTIATED UNIVERSAL 'ELECTRONIC' MEDIUM 2328

0045

ECONOMICS, COMPLEXITIES, TIE-INS & sheer goodness & delight OF PARTICULAR SYSTEMS will determine shape of things

~~It's true there'll be fantastic new ...~~

0020 No such thing as 'cyberculture' 3228

LIST =

FUNX
UNKNOWN
to PUBLIC

→ return to latter two

G CONTROL

UNTH ORL 36

VA TH

2432

Note

NEW ERA OF CONTROL

where controls

take on new

simplicity,

clarity of actions,

corresp. to thought

...

HOW THIS APPLIES
TO U-TYPE SYSTEM

INTEGRATED CONTROL BOXES

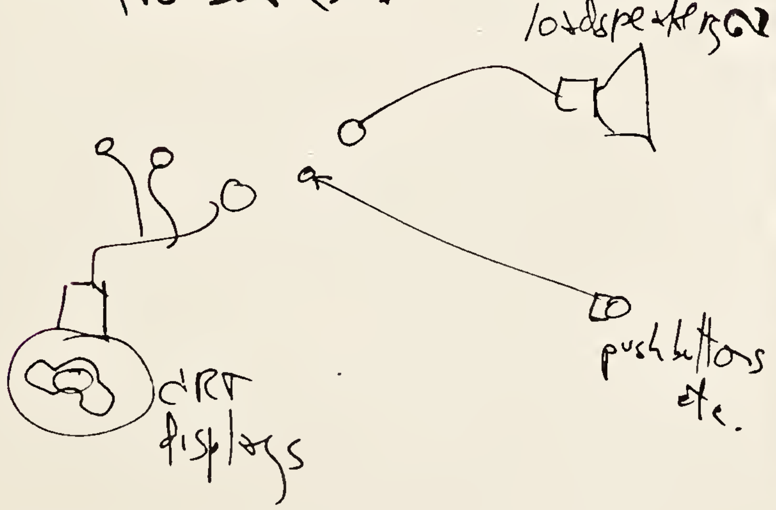
0127

~~Example~~

SLIDE

New & completely generalized dashboards:

2405



Standardization of interfaces
will ~~simplify~~ simplify &
bring versatility.

UNTH ORL 37

0147 COMPLEX EVENT CONTROLLER under DELICATE Human Supervision 2425

0146 COMPLEX EVENT CONTROL SYSTEM 2424

0146 e.g. for Christmas & movie production effects

0145 Zeiss now offers a digitally-controlled planetarium projector. 2423

Typewriter & others

UNTH ORL 38

vNote

The computer will
control all
home appliances.

2439

UNTH ORL 39

0034 Control: 'The hyper-media'

—— multi-dimensional,
or multi-variant,
control

2332

will discuss shortly

H1

COMPUTER DISPLAY

UNTH ORL 40

0049

Computer display is the hardest thing in the world to explain... to an adult.

But I've never had any trouble explaining it to children.

(The adult is always trying to probe your metaphors. The kid just listens.)

Are you ready to try?

2343

'Sketchpad' film

0142* UNTL * [copy with SPL, 10C]

COMPUTER DISPLAY

~~a~~ runs off ~~a list of~~ patterns in the computer, each of which causes the ~~...~~ electron beam in the cathode-ray tube to trace out a ~~pat~~ particular pattern on the screen. It is in arranging these lists of patterns, and arranging for them to be changed in subtle ways, that the sort of display programming consists. 2422

Do you like c. disp? Say AYE ~~...~~

IBM film

Judge film

AYE

during

ARDS film

0060

(explain that text is not sent pictorially but telegraphically, and reconstituted at destination.) 2354

I

(Slides)

UNTH ORL 42

VOTED SYSTEMS
(dismiss)

UNRECOGNIZED SYSTEMS
(dismiss)

J

UNTH ORL 43

Htxts

TON OF SLIDES

SHUT OFF ON BOMB SHELTER

END
w
SHANDY

0062

Computer people don't like hypertext.

Apparently they don't see any POINT ~~[illegible]~~ in them!

2355

But you are fully justified to say whether you want hypertexts and what kind.

The supply will follow in time [illegible] the demand.

K

Now to most sad part of ~~th~~ this harangue

the ~~~~ systems ~~being built,~~ dismal & retrograde being built for computer-assisted instruction.

4	slides
on	none

KILL

IA

UNTH ORL 45

0097 Considerable ~~excitement,~~ ~~and~~ publicity has attended the recent collaborations of publishers with computer firms, and many emphatic predictions made for their relations, and the role of the psychologist as the middleman in "computer-assisted instruction." ~~Delivery has not ...~~ there has been no issue from these marriages. 2391

0092 Amusing ~~(Make cracks about~~ corporate floundering ~~of~~ over CAI.) 2385

they simply don't know.

Mysterious ~~talk~~ ~~about~~ 'hardware' & 'software' — ~~meaningless.~~ Confused, Throw issue in laps of educators.

2 slides

2 2

UNTH ORL46

0083 'PSYCHOLOGY'

2370

There is no criticizing the achievements of psychology. But it is possible to criticize or discount, its aspirations.

the political, the administrative and the spiritual are not within its domain (—the spiritual having been let go since the time of William James—) (—its sociology now, since it's what goes between individuals—) and real problems contain these.

Consider education. Its problems are constriction of its subjects, humiliation of the student, antagonism between student and teacher, and the discouragement and demoralization that result. These are POLITICAL, ADMINISTRATIVE AND SPIRITUAL. (50% improvement, or even 100%, in rote learning techniques don't help us much.)

Psychologists, in rush to apply their stuff, simplify insanely

0067

2362

simplifications of B.F. Skinner —

PATIENCE (Walden 2)

PRACTICE (Prog. ed.) ramming

Types of CAI

Drill & practice (linear)
→ immediate correction but no change

TUTORIAL
branch contingent

DIALOGUE
or Socratic

explain

Curious feature of all:
conversational, or confrontational

UNTH ORL 48

ASPIRATIONS OF CAI

Painless drill, substitute
boredom for anxiety

Do. 7. Optimally

2 | slides

leave latter

Visions of:

'freeing the teacher for the more creative part'
→ which is of course in most cases dubious, but never mind

The Grand Teacher

Kill slide

The Judy Harris Alphabetic Guessing Game

#5 UNTH ORL 49

0068 The probs. of education are not those of Practice & Explanation alone, though these symptomatic. 2362

They are:
LOW STATUS OF STUDENT
INSULT & AFFRONT TO STUDENT
DISCOURAGEMENT
ANGER, OUTRAGE, DISGUST
IDEOLOGICAL & PERSONALITY CONFLICTS @ TEACHERS

0069 ~~(More basic probs. of ed.)~~ 2364
BLUNTING &
BOWDLERIZATION
OF
THE MOST SOPHISTICATED
(esp. English, history)

0068 LACK OF VISION OR GENERALITY BY TEACHER — 'reducing it to their level'

UNTH ORL 50

6

0091

More than Rote learning, education involves

IMPACT

EFFECT

FEELING — OF THINGS & SUBJECTS;

FEELING OF ONE'S OWN RELTN TO SUBJECTS — SENSE OF PARTICIPATION, INVOLVEMENT, WELCOMENESS → IDENITY w rel to sub & world

2384

0099 Education is that succession of discouragements that have whittled people down mentally to their present sizes. 2391

0043 Low Prestige of Student fosters → insult

IS LOW STATUS NEC PART OF STUDENT ROLE? MOST SAY YES but → [cf. 'doctors ed.'] — 'detail men'
Also corp. & presidential principals

0004 ~~Two~~ several roads have converge to build ~~the~~ a highly prescriptive approach to teaching.
Behavioral psych: tradition of sequencing expts, beg. w Pavlov & Titchener
'Professional' approach: sequences are tangible, good, ad hoc teaching not.

0004 Curricular sequencing laid down by school boards.

0068 The American way is to ~~Like America in Vietnam~~ we concentrate our force on that which may be freely tampered with, rather than that which is fundamental. of everywhere?? movingest politics, underter. [illegible]

9

I have time only to give you flavor of these criticisms – 52

UNTH ORL
UNTH ORL

FAULTS OF CAI

ENORMOUS WASTE

Tremendous expenditure of effort
in mapping, flowcharting of
pres. sequences → dangers of irrecoverably
confusing the student when not debugged [chart Sci Am 214-15]

Foisting & perpetuation of intellectual servility
& low status

Bizarre absorption in unimportant technicalities
altering minor improvement
ROTE-QUOTA APPROACH Atkinson 237 ¢ 2 #2 →

STRANGE PREMISE WRIT LARGE
UPON ITS BROW = that
the system must be mating
conversation. (Tollbooth, Grand Central)
→ Interaction not always gratifying.

Built into term: "instructional system".

UNTH
Att 91

2432

(Read long passage from new Atkinson article)

Nothing is "wrong" with this rote-quote approach.

TUT-TORIAL

But if it's gotten to that, what are we doing. I can still remember learning to read, and the excitement of taking the first book I had read back to the teacher and asking for another.

But now if you agree that this is

UNTH
Att 92

2432

cloddish way to teach reading with computers, design a better one.

I mean it. Design a better one!

You now have a fair idea of what the equipment can do. Find out more and do something better with it.

RESPONSIVE RESOURCE

I don't say they won't do good things this way.

But I think there ought to be more horses in the race.

UNTH ORL

53

9B

UNTH ORL 54

UNTH
(CAT)

2433

It's not that I see anything intrinsically wrong with what people are doing; it's just that I want equal time for Dr. Seuss.

2437

UNTH

The ultimate sin is to suppose you are doing something the only possible way.

~~PA~~ 9C

UNTH ORL 55

~~CI~~ UNTH

CAI attitude:

"We have to have a hundred years experience with this before we can possibly do anything else."

My attitude:

"We've had a few months experience with this, and it's high time to do something else."

2438

10 UNTH ORL 56

0125 Likewise think of educ. as acquired response-sets. a resp.-sets. Neither response sophomoric.

'Every time you hammer a fact into a child's mind you crowd out an idea.'

G.K. Chesterton
quoted by Jean
(New York lecture,
early '20s.)
["Maybe '21. "] 2401

UNTH
C★1

I'm with
Goodman
Ashton-Warner
Holt
⋮

2442

0035 FAKE SCIENTISM

Setting up an experiment according to a point of view, getting results, and claiming implicitly that this demonstrates your point of view. 2332

0061 Tristram Shandy's father:
'By heavens! ... the world is in conspiracy to drive out what little wit God has given us, and the professors... * are lifted into the same conspiracy.' 2355

*[of the obstetric art]

12

UNTH ORL 58

0042

Technol. as trick
to break away from
old social context
of education

34

and at the best, provide
wanderments & involvements
~~that~~ that will bring
the kid into the interests
that school leaves him
by its curricularization

13

UNTH ORL 59

0066 'RICH RESOURCE' 236

approach

vs

CONVERSATIONAL
PRE-PLANNED PATH
& APPROACH

~~2306~~ 0006 'Highly prescriptive' vs 'libertarian' approaches to teaching.

↓

(Not 'structured' — everything is structured; self-teaching is 'just as' structured, but freer.) 2306

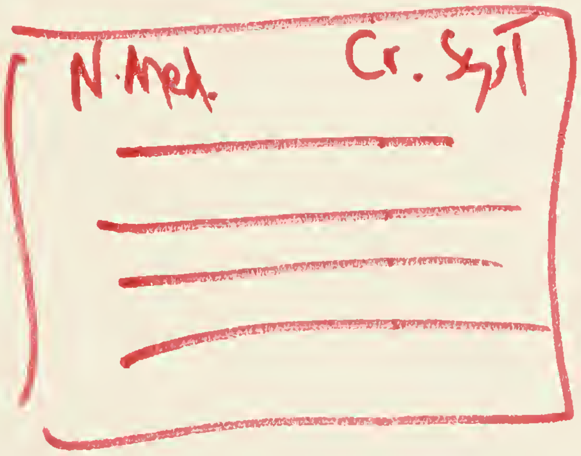
UNTH ORL60

L

FANTICS

INFORMATION + PRESENTATION

Altop [illegible]



REMOVE CARTRIDGE

M

Xanadu

UNTH ORL 61

Earthrass (3)

UNTH

VAN DAM THING

2435

If I'd described this two months ago it would have been hypothetical, just as it was for the eight years I was designing it and looking for support.

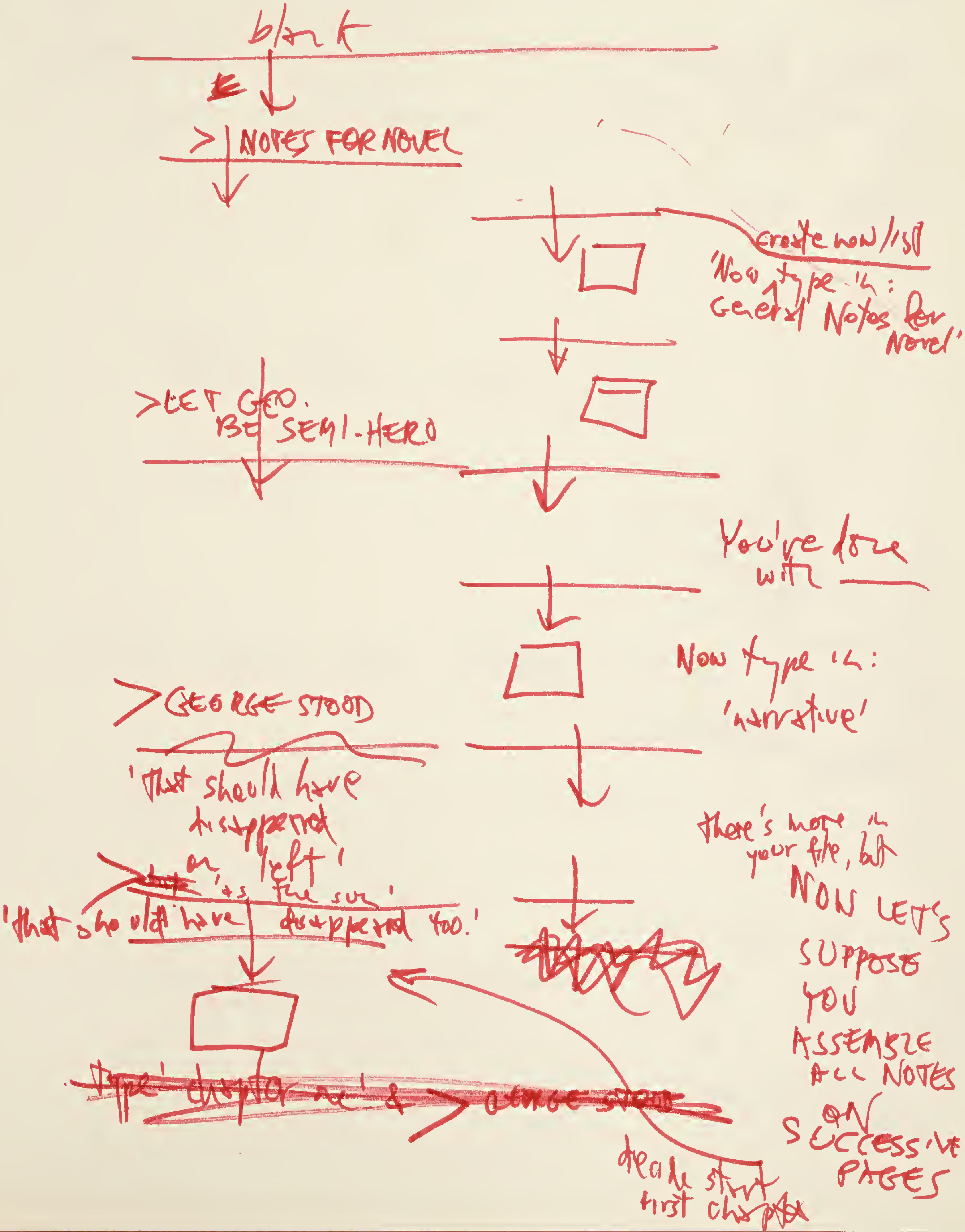
But I can now say this is not science-fiction. It will be running this summer in Providence, Rhode Island. Tomorrow the world.

2-cassette setup →

1 N

UNTH ORL 62

XANADU CUES



2

UNTH ORL

~~SUCCESSIVE PAGES~~

Now type 'Chapter one'

> GEORGE STOOD

> ~~AS THE SUN~~

> AS THE SUN

'Now the next page'

> THINGS LOOKED BAD

> STURDLEY EXAMINED

DECIDE TO START NEW VERSION

> ~~THINGS LOOKED BAD~~

> AS THE SUN

> GEORGE STOOD

UNTH ORL 64

O

mislaid

(List: SCHOL. SYSTS)

Schol. systs. HYPERGRAMS.

Three-D maps of excavations
with annotations

~~HR~~
CRT maps of chronologies in history
etc.

I'VE MISLAID
HYPERCOMICS

UNTH ORE 65

P

HEAT. SYSTS.

(1.5t

A

Q AUDIO PROCESSING UNTH ORL 66

0033

Com, digitally,
ANY SOUND
A HUMAN BEING
CAN IDENTIFY
COMPONENTS OR
can be created deleted
& transformed.

2220

UNTH ORL 67

R

Hyperfilms

EDITING ~~FIL~~ SYSTEMS.

Hypervideotext

SUPER-PICTORIAL

~~GE~~

Romney

GE/NASA

S

Fantasm UNTH ORL 68

ICO NOT USED 0106

FANTASM will require:
Sculptors
Puppeteers
Scenic designers & art directors
Directors

2397

0059

With Fantasm, the authenticity of photographs will become impossible except through certificates etc.
[and isn't it anyway? — L.H. Oswald]

2354